

Appl. No. 10/506,487
Amdt. Dated December 11, 2008
Reply to Office Action of February 19, 2008

••• R E M A R K S / A R G U M E N T S •••

The Office Action of February 19, 2008 has been thoroughly studied. Accordingly, the changes presented herein for the application, considered together with the following remarks, are believed to be sufficient to place the application into condition for allowance.

By the present amendment, independent claim 1 has been changed to recite a metal- or resin-laminated gasket, which comprises a cured product layer obtained by combining and reacting the following components (A) (B) and (C).

Independent claim 1 has further been changed to include the limitation of claim 5 therein.

In addition, claim 14 has been rewritten in independent form.

Entry of the changes to the claims is respectfully requested.

Claims 1-4 and 6-15 are pending in this application.

Claims 1-15 stand rejected under 35 U.S.C. §112, second paragraph.

Under this rejection the Examiner has taken the position that the phrase "a cured product layer" is indefinite since the "various components A-C" ... "lose their character upon curing."

In response to this basis for rejecting the claims, independent claim 1 has been changed to recite: "A metal- or resin-laminated gasket, which comprises a cured product layer obtained by combining and reacting the following components (A) (B) and (C);"

Further under this rejection the Examiner has taken the position that the limitations of claim 14 are not compatible with the limitations of claim 1.

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In response to this basis for rejecting the claims, claim 14 has been rewritten in independent form as noted above.

Claims 1-3, 5, 6, 8, 9, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,463,704 to Farnam in view of U.S. Patent No. 5,986,014 to Kusakabe et al. and U.S. Patent No. 4,008,190 to Taylor et al.

Claims 4 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Farnam in view of Kusakabe et al. and Taylor et al. and U.S. Patent No. 6,444,740 to DeCato et al.

Claims 7 and 11-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Farnam in view of Kusakabe et al., Taylor et al., DeCato et al. and U.S. Patent No. 5,684,110 to Kawamura.

For the reasons set forth below, it is submitted that all of the pending claims are allowable over the prior art relied upon by the Examiner and therefore, each of the outstanding rejections of the claims should properly be withdrawn.

Favorable reconsideration is earnestly solicited.

The Examiner has relied upon Farnam as teaching:

... a gasket (Abstract, l. 2), which comprises a cured product layer (Abs., l. 17 "cure the coating") and a metal plate or resin plate (col. 3, l. 26 "polymeric material", a resin), the cured product layer being provided on at least one surface of the resin plate (col. 8, ll. 46-48 "applied to top and bottom surfaces" and Abs., ll. 4-5 and 17).

The Examiner concedes that:

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Farnam (704) fails to expressly disclose a composition comprising an acrylic polymer having at least one alkenyl group capable of undergoing hydrosilylation reaction by copolymerization of an acrylic acid ester monomer and a compound as a second monomer represented by the general formula: $\text{CH}_2=\text{CR}^1-\text{R}^4-\text{CR}^1=\text{CH}_2$ wherein R^1 is a hydrogen atom or a methyl group and R^4 is an alkylene group of $\text{C}_2\text{-C}_6$; or wherein the second monomer is one of 1,5-hexadiene, 1,7-octadiene and 1,9-decadiene, a hydrosilyl group-containing compound; and a hydrosilylation catalyst as essential components

Accordingly, the Examiner has relied upon Kusakabe et al as teaching:

... a composition comprising an acrylic polymer having at least one alkenyl group capable of undergoing hydrosilylation reaction (See col. 1, II. 43-45 and col. 14, I. 63.), by copolymerization of an acrylic acid ester monomer and a compound as a second monomer represented by the general formula:



wherein R^1 is a hydrogen atom or a methyl group, R^4 is a group of $\text{C}_1\text{-C}_20$ (See col. 12, II. 56-60 wherein 1,5-hexadiene, 1,7-octadiene and 1,9-decadiene satisfy the above formula with R^4 having 2, 4 or 6 carbons respectively. See also col. 5, I. 59 to col. 6, I. 33 wherein Applicant's left R is equivalent to Kusakabe's R and right R which is equivalent to Kusakabe's R which is a hydrogen or methyl group and explained in col. 5, II. 63-67 and wherein Applicant's R^4 is equivalent to Kusakabe's R^4 and R^5); a hydrosilyl group-containing compound (See col. 11, I. 46.) and a hydrosilylation catalyst as essential components (See col. 14, II. 49-50.) for the purpose of providing a gasket having good depth curability without foaming (See col. 14, II. 47-64).

The Examiner has relied upon Taylor et al. as teaching:

...automobile gaskets made from compounds such as $\text{CH}_2=\text{CR}^1-\text{R}^4-\text{CR}^1=\text{CH}_2$ wherein R^1 is a hydrogen atom or a methyl group, R^4 is an alkylene group of $\text{C}_2\text{-C}_6$, such as 1,4,9-decatriene or dienes such as 1,5-hexadiene and 1,4-pentadiene (See col. 2, II. 41-52.) for the purpose of providing automobile gaskets that are oil, chemical and heat resistant (See col. 7, II. 27-32.).

In combining the teachings of Farnam, Kusakabe et al. and Taylor et al. the Examiner takes

the position that:

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...it would have been obvious to one having ordinary skill in the art at the time Applicants' invention was made to substitute the composition of Farnam ('704) with the well known acrylic polymers as taught by Kusakabe ('014) and Taylor ('190) in order to provide gaskets having oil, chemical and heat resistant with good depth curability without foaming.

The Examiner further states:

Furthermore, Taylor ('190) teaches alternative uses of the specified trienes and dienes, therefore, it would have been obvious to substitute the trienes of Taylor ('190) for the dienes of Kusakabe ('014) in order to provide gaskets having oil, chemical and

On page 6 of the Office Action the Examiner states:

The phrase "wherein the second monomer reacts at a final stage of the polymerization reaction or after completion of the reaction of the acrylic acid ester monomer in the synthesis of acrylic polymers by living radical polymerization" in claim 15,11. 1-4 are process limitations in a product claim and hence not given any patentable weight since patentability of a product does not depend on its method of production (see MPEP § 2173.05(p)).

MPEP § 2173.05(P) (cited by the Examiner) reads as follow:

2173.05(p) Claim Directed to Product-By- Process or Product and Process [R-5]

There are many situations where claims are permissively drafted to include a reference to more than one statutory class of invention.

I. PRODUCT-BY-PROCESS

A product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made, is proper. *In re Luck*, 476 F.2d 650, 177 USPQ 523 (CCPA 1973); *In re Pilkington*, 411 F.2d 1345, 162 USPQ 145 (CCPA 1969); *In re Steppan*, 394 F.2d 1013, 156 USPQ 143 (CCPA 1967). A claim to a device, apparatus, manufacture, or composition of matter may contain a reference to the process in which it is intended to be used without being objectionable under 35 U.S.C. 112, second paragraph, so long as it is clear that the claim is directed to the product and not the process.

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An applicant may present claims of varying scope even if it is necessary to describe the claimed product in product-by-process terms. *Ex parte Pantzer*, 176 USPQ 141 (Bd. App. 1972).

II. PRODUCT AND PROCESS IN THE SAME CLAIM

A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. *>*IPXL Holdings v. Amazon.com, Inc.*, 430 F.2d 1377, 1384, 77 USPQ2d 1140, 1145 (Fed. Cir. 2005); < *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990) *>(< claim directed to an automatic transmission workstand and the method * of using it * held ** ambiguous and properly rejected under 35 U.S.C. 112, second paragraph>)<.

Such claims *>may< also be rejected under 35 U.S.C. 101 based on the theory that the claim is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. *Id.* at 1551.

As can be clearly seen, MPEP § 2173.05(P) does not support the Examiner's basis for failing to give proper patentable weight to the functional and structural limitations found in applicants' independent claims.

Note: MPEP § 2173.05(P) states that a "product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made, is proper," and that "a claim to a device, apparatus, manufacture, or composition of matter may contain a reference to the process in which it is intended to be used without being objectionable."

Neither of these situations applies to the present application.

MPEP § 2173.05(P) further states that a "single claim which claims both an apparatus and the method steps of using the apparatus is indefinite."

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This situation also does not apply to the present application.

Accordingly, the Examiner's basis (i.e., reliance upon MPEP § 2173.05(P)) for failing to give proper patentable weight to the functional and structural limitations found in applicants' independent claims, is clearly in error.

The actual phrase or recitation:

wherein the second monomer reacts at a final stage of the polymerization reaction or after completion of the reaction of the acrylic acid ester monomer in the synthesis of acrylic polymers by living radical polymerization.

Is a functional or structural limitation that defines, describes and limits component (A) of the composition from which the metal- or resin-laminated gasket is made.

Note: these limitations/recitations clearly satisfy the requirements of 35 U.S.C. §112, first paragraph which reads:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

And the requirements of 35 U.S.C. §112, second paragraph which reads:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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It is submitted that there no legal basis that supports the Examiner's refusal to properly consider the functional and structural recitations/limitations which are proper elements of applicants' claimed invention.

It is submitted that proper consideration of these functional and structural recitations/limitations would establish patentability over the prior art or record.

As discussed in applicants' *BACKGROUND ART* section, the present invention is directed to avoiding the prior art methods of dissolving rubbers in organic solvents and applying the resulting solution to the surface of a metal plate or resin plate, then removing the solvent and curing the vulcanizing the thin rubber layer. (See page 1, lines 7-22)

As further taught by applicants in the paragraph bridging pages 2-3:

The metal plate or resin plate is coated with any adhesive with good vulcanization adhesiveness to an acrylic polymer for use in the invention.

In view of this disclosure, independent claim 1 has been amended herein to recite that a composition of components (A) (B) and (C) is directly applied to an adhesive-coated metal plate or resin plate and cured.

Farnam teaches coating "gasket materials" with "polymeric dispersions" as set forth at column 7, lines 12-14.

More specifically Farnam teaches "liquid penetrable" gasket materials.

In Farnam the liquid penetrable gasket materials are coated with a liquid dispersion of polymers. Next, the liquid coating is dried and thereafter cured.

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Farnam does not teach the use of an adhesive-coated metal plate or an adhesive-coated resin plate upon which the polymer dispersion is applied.

Thus, Farnam does not teach applicants' use of an adhesive-coated metal plate or resin plate.

Moreover, it is submitted that if one were to attempt to follow the teachings of Farnam and use an adhesive-coated metal plate or resin plate, the adhesive would prevent the polymer dispersion from penetrating the metal plate or resin plate as specifically required by Farnam.

Therefore, Farnam teaches against applicants' use of an adhesive-coated metal plate or resin plate and no secondary or tertiary teachings in the prior art can rectify this patentable distinction between Farnam and applicants' claimed invention.

It is noted that Kusakabe teaches $\text{CH}_2=\text{CR}^1-\text{R}^4-\text{CR}^1=\text{CH}_2$ in which: "R4 is -C(O)O-, or o-, m-, p-phenylene."

In contrast to Kusakabe, the compound having two alkenyl groups used in the present invention does not include -C(O)O-, or o-, m-, p-phenylene.

Further Kusakabe teaches $\text{CH}_2=\text{CR}^1-\text{R}^4-\text{CR}^1=\text{CH}_2$. However, at column 8, lines 43-64 Kusakabe teaches that this compound is used for "Conversion of the halogen atom into an alkenyl group-containing substituent [which] gives a (meth)acrylic polymer having alkenyl groups at both ends."

In contrast to Kusakabe, in the present invention the $\text{CH}_2=\text{CR}^1-\text{R}^4-\text{CR}^1=\text{CH}_2$ is used rather than the compound of formula (4) of Kusakabe.

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A careful review of Kusakabe reveals that composition of Kusakabe is not at all similar to that recited in applicants' independent claim 1.

Therefore, substituting the composition of Kusakabe into Farnam does not result in applicants' claimed invention and certainly does not render applicants' claimed invention obvious.

The Examiner has relied upon Taylor et al. at column 7, lines 27-32. This portion of Taylor et al. refers to "automobile applications such as tires, hosing, belting, gaskets, seals, weatherstripping, and windshield wiper blades."

There is no disclosure in Taylor et al. of metal- or resin-laminated gaskets, let alone the impregnated gaskets of Farnam.

The Examiner's further reliance upon DeCato et al and Kawamura do not address or overcome the distinctions between the present invention and Kusakabe et al. noted above or that the fact that the combination of Farnam and Kusakabe et al. do not render the pending independent claims obvious.

Based upon the above distinctions between the prior art relied upon by the Examiner and the present invention, and the overall teachings of prior art, properly considered as a whole, it is respectfully submitted that the Examiner cannot rely upon the prior art as required under 35 U.S.C. §103 to establish a *prima facie* case of obviousness of applicants' claimed invention

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

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It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of the prior art and the outstanding rejections of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejections of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remain outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicant's patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,



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